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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,718	03/21/2001	Paul Schimmel	TSR1 817.0	3346

7590

07/29/2003

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EXAMINER

NICKOL, GARY B

ART UNIT

PAPER NUMBER

1642

DATE MAILED: 07/29/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/813,718

Applicant(s)

SCHIMMEL ET AL.

Examiner

Gary B. Nickol Ph.D.

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7-36 and 38-51 is/are pending in the application.
- 4a) Of the above claim(s) 9-35 and 38-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7 and 36 is/are rejected.
- 7) ☒ Claim(s) 8 and 49-51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 13
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Response to Amendment***

The Amendment filed May 23, 2002 (Paper No. 12) in response to the Office Action of April 22, 2002 is acknowledged and has been entered. Further, Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is **withdrawn**.

Claims 2, 4, 6, and 37 were cancelled.

Claims 49-51 were added.

Claims 9-35 and 38-48 have been withdrawn from further consideration by the examiner under 37 CFR 1.142(b) as being drawn to non-elected inventions.

Claims 1, 3, 5, 7-8, 36, and 49-51 are currently under consideration.

**The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.**

***Interview Summary***

A phone conversation with Mr. Talivaldis Cepuritis was conducted July 21, 2003 informing Mr. Cepuritis that cancellation of the non-elected claims would render the pending claims allowable. However, upon review and reconsideration, new references were brought to

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the attention of the examiner resulting in the present Action. The examiner apologizes for any inconveniences to applicants.

***Claim Rejections - 35 USC § 102***

Claims 1, 3, 5, 7, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by BERESTEN *et al.* (European Jnl. Biochemistry, Vol. 184, 1989, pages 575-581).

Beresten *et al.* teach an isolated mammalian truncated tryptophanyl-tRNA synthetase that has a size of at least about 46 kilodaltons and less than full length tryptophanyl-tRNA synthetase having a size of about 54 kilodaltons wherein the truncated tryptophanyl-tRNA synthetase polypeptide has amino-terminal truncation. Specifically, Beresten *et al.* teach that “truncated bovine Trp-tRNA synthetase dimmers, composed of shortened polypeptides with a molecular mass of **51 kDa**, were obtained by limited trypsinolysis” (page 576, left column, 4<sup>th</sup> paragraph, and Figure 6, page 579). Beresten *et al.* further teach (page 577, right column, 3<sup>rd</sup> paragraph) that “in the course of limited trypsinolysis each bovine Trp-tRNA synthetase polypeptide chain is split as follows: 60 kDa → 51 kDa → 40 kDa → (24kDa + 14 kDa) consecutively, from the amino terminus. Furthermore, Beresten *et al.* teach (page 578, right column, 2<sup>nd</sup> full paragraph) that discrete proteolytic fragments of 51 kDa, 40 kDa, 24 kDa, and 14 kDa were observed by radioimmunoabsorption reactions that comprised said fragments in 0.1 ml NaCl/P<sub>i</sub> (page 576, right column, 3<sup>rd</sup> paragraph) which encompasses a composition comprising an isolated mammalian truncated tryptophanyl-tRNA synthetase that has a size of at least about 46 kilodaltons (and less than full length tryptophanyl-tRNA synthetase having a size of about 54 kilodaltons) and a pharmaceutically suitable excipient. Although Beresten *et al.* do not

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specifically teach that the truncated tryptophanyl-tRNA synthetase polypeptide(s) comprise a “Rossmann fold nucleotide binding domain” the claimed product appears to be the same as the prior art. Indeed, Beresten *et al.* recognize (page 581, 3<sup>rd</sup> paragraph) some features of the bovine Trp-tRNA synthetase may be attributed to non-standard functions such as the ability to bind nucleotide analogs. Thus, absent evidence to the contrary, the prior art polypeptide inherently comprises a Rossmann fold nucleotide binding domain. Furthermore, although the reference does not specifically teach that the truncated polypeptide is capable of regulating vascular endothelial cell function, or that the truncated polypeptide is angiostatic (Claim 5), the claims are drawn to the product *per se* and inherently, such a polypeptide is capable of regulating vascular endothelial cell function and is angiostatic. The office does not have the facilities and resources to provide the factual evidence needed in order to establish that the product of the prior art does not possess the same material, structural and functional characteristics of the claimed product. In the absence of evidence to the contrary, the burden is on the applicant to prove that the claimed product is different from those taught by the prior art and to establish patentable differences. See *In re Best* 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *Ex parte Gray* 10 USPQ 2d 1922 (PTO Bd. Pat. App. & Int. 1989).

Claims 8, and 49-51 are objected to as being dependent from a rejected base claim.

**All other rejections and or objections are withdrawn in view of applicant's amendments and arguments there to.**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 703-305-7143. The examiner can normally be reached on M-F, 8:30-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on 703-308-3995. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Gary B. Nickol, Ph.D.  
Examiner  
Art Unit 1642

GBN  
July 22, 2003

  
ANTHONY C. CAPUTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

## Interview Summary

Applicati n No.

09/813,718

Applicant(s)

SCHIMMEL ET AL.

Examiner

Gary B. Nickol Ph.D.

Art Unit

1642

All participants (applicant, applicant's representative, PTO personnel):

(1) Gary B. Nickol Ph.D.

(3) \_\_\_\_\_

(2) Talivaldis Cepuritis

(4) \_\_\_\_\_

Date of Interview: 21 July 2003.

Type: a) ☒ Telephonic b) ☐ Video Conference

c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.

If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: all.

Identification of prior art discussed: \_\_\_\_\_

Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Mr. Cepuritis was informed that cancellation of the non-elected claims would render the pending claims allowable. However, upon review and reconsideration, new references were brought to the attention of the examiner resulting in the present Action. The examiner apologizes for any inconveniences to applicants.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
Examiner's signature, if required